

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended): A micro controller, comprising a CPU, performing processing in accordance with a program,

said micro controller further comprising:

a memory, storing: grouped compressed codes, resulting from the conversion of original codes into variable length codes in a plurality of compressed code format types, and each type has a fixed length,

wherein the plurality of compressed code format types include a first type of a first compressed code length, and a second type of a second compressed code length,

an address conversion information, specifying the head address of each group of grouped compressed codes of variable lengths; and

a compressed code type information in blocks corresponding to the groups of the compressed codes, including compressed code format type data corresponding to the compressed codes, and indicating the compress code format types of the corresponding compressed codes contained in each group; and

a compressed code processing part, specifying, from a code address output by the CPU, an address conversion information and compressed code type information to be referred, and using the specified address conversion information and the compressed code type information to determine the corresponding compressed code address, and reading the corresponding compressed code.

2. (Original): The micro controller as set forth in Claim 1, wherein
the memory furthermore stores dictionary information for decompressing compressed codes into the original codes and

the compressed code processing part refers the dictionary information to decompress the compressed code, which has been read, into the original code.

3. (Original): The micro controller as set forth in Claim 1, wherein said compressed code processing part stores information for identifying the area in said memory in which compressed codes are stored, the area in said memory in which the address conversion information are stored, and the area in which the compressed code type information are stored.

4. (Previously Presented): The micro controller as set forth in Claim 3, wherein said memory stores said address conversion information in the order of blocks of original codes, and
to store said compressed code type information in the order of the original codes.

5. (Original): The micro controller as set forth in Claim 2, wherein said dictionary information are stored in areas that are divided according to the code lengths of the corresponding compressed codes, and in each area, said dictionary information are stored in the order of the codes of said corresponding compressed codes.

6. (Original): The micro controller as set forth in Claim 5, wherein said compressed code processing part specifies, from the compressed code type information, the area in which the dictionary information to be referred is stored, and, based on the compressed code, specifies the dictionary information to be referred that is contained in the specified area.

7. (Original): The micro controller as set forth in Claim 1, wherein said compressed code processing part reads, from said memory and prior to reading a compressed code, a compressed code set, having a predetermined size and containing the compressed code to be read,

said micro controller is equipped with areas, respectively storing temporarily the address conversion information, the compressed code type information, and the compressed code set that were used just immediately before,

to use the address conversion information and the compressed code type information that are stored temporarily in said areas in a case where the code address output by the CPU is contained in the same block as the compressed code that was read just immediately before, and

to read the compressed code from the compressed code set that is stored temporarily in said area in a case where the compressed code corresponding to the code address output by the CPU is contained in the compressed code set that was read just immediately before.

8. (Previously Presented): The micro controller as set forth in Claim 1, wherein said compressed code contains the same program as the original code.

9. (Previously Presented): The micro controller as claimed in claim 1, wherein the code address includes a group number identifying the head address of the group and an order number identifying the compressed code format type datum in the block corresponding to the group identified by the group number, and the processing part determines a base address of the block of the compressed code type information in accordance with the group number and a distance from the base address to the compressed code format type datum identified by the order number using a sum of the fixed code lengths of the compressed code format types represented by the compressed code format type data between the base address and the compressed code format type identified by the order number.

10. (Currently amended): A micro controller, comprising a CPU, performing processing in accordance with a program,

said micro controller further comprising:

a memory, storing: grouped compressed codes, resulting from the conversion of original codes into variable length codes in a plurality of compressed code format types, and each type has a fixed length,

wherein the plurality of compressed code format types include a first type of a first compressed code length, and a second type of a second compressed code length,

an address conversion information, specifying the head address of each group of grouped compressed codes of variable lengths; and

compressed code type information in blocks corresponding to the groups of compressed codes, including compressed code format type data indicating the compressed code format types of the compressed codes; and

a compressed code processing part, determining, from a code address output by the CPU and via which the code address the CPU specifies one of the original codes and using the address conversion information and the compressed code type information, a compressed code address of a compressed code corresponding to the specified original code, and reading the corresponding compressed code.